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09/493,188	01/28/2000	Hidehiro Ishii	P7156-9071	1906

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EXAMINER
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PATEL, GAUTAM

ART UNIT	PAPER NUMBER
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2627

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 09/493,188	Applicant(s) ISHII ET AL.	
	Examiner Gautam R. Patel	Art Unit 2627	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 July 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 7-76 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 47-61, 67, 68, 70 and 71 is/are allowed.
- 6) ☒ Claim(s) 7-46, 53-55, 62-66, 69 and 72-76 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

Art Unit: 2627

### **DETAILED ACTION**

1. Claims 7-76 are pending for the examination. Claims 72-76 has been added.

### **RCE STATUS**

2. The request filed on 7/6/07 for Request for Continued Examination (RCE) under 37 CFR 1.114 based on parent Application is acceptable and a RCE has been established. An action on the RCE follows.

### **NOTES & REMARKS**

3. As promised a phone call was made before working on the RCE to Ms. Rhonda Barton. Ms. Barton made several attempts to contact the client but no reply was received in time. The Examiner position was once again explained to Ms. Barton in detail.

Applicants are encouraged to give commercial acceptance of this mode signal indicating mixed mode signal to be unique.

### **Claim Objection**

4. Claims 53-55 and 69 are objected as being confusing. It is not clear where preamble starts or stops. For example line 2 of claim has words recording medium comprising but also line 8 also has another "comprising". Also how can a recording medium have [disk etc.] a system within it is not clear.

### **Claim Rejections - 35 U.S.C. § 103**

5. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7-46, 53-55, 62-66, 69 and 72-76 are rejected under 35 U.S.C. § 103(a) as being anticipated by Heo, US. patent 6,167,192 (hereafter Heo) in view of Aoki, US. patent 6,243,220 (hereafter Aoki).

As to claim 7, Heo discloses the invention as claimed [see Figs. 2-20 especially 2-8 and 14] including a video data recording area, a video manager recording area and control information indicating audio data intermingled from different recording modes, comprising:

a video data recording area [figs. 2-4, VTSI] on which video data [VTSI\_MAT] and an audio stream [VTSM\_AST\_ATR, VTS\_AST\_ATR and VTS\_AST\_ATRT] containing audio data is recorded [col. 4, line 36 to col. 5, line 41]; and

a video manager recording area [fig. 2, VMGI] located in a different position from the video data recording area in a direction of a diameter of the recording medium, in which control information is recorded, wherein the control information includes application information indicating whether or not the audio stream recorded in the video data recording area [col. 4, line 36 to col. 5, line 41].

Heo discloses all of the above elements, including a controller and various modes of audio data. Heo also discloses multi-channel audio streams attributes and also a table containing these attributes [fig. 4, RBP 792].

Heo does not specifically disclose a “mixed mode flag” and that these modes are selected in succession [i.e. one after another], or that stream contains audio data intermingled from different recording modes as one stream.

However, it is well known in the art that inherently one has to have a signal for modes. For example when a commercial on the TV comes on, sound level during commercial goes up. This cannot be done unless one knows what mode [i.e. commercial or regular program] is coming next. After looking at this volume is changed. These concepts are well known and very old in the art.

Also more importantly Aoki clearly discloses:

a mode signal which tell if the stream is a singular stream of one kind of a data or it is mixed data which contains various modes [such as monaural, bilingual etc.] in that stream [col. 4, lines 35-43].

NOTE: In Aoki table 1 [prior art] shows that each audio mode is sent to each audio signal input [input 2-6]. However Aoki also very clearly indicates in his invention at col. 4, lines 39-43; that “(for example, monaural, two language/multi-language, stereo 2-channel, stereo 4-channel **or a combination thereof**) is encoded. And it is supplied to the ID/sub-code insertion circuits 11

Art Unit: 2627

and 12. In other words Aoki clearly is combining at least two of stereophonic recording mode, monaural mode and multiplex recording mode. These different modes are then separated by decoding these modes and decoding inherently cannot be done unless originally these modes were encoded [combined], which is done by Aoki.

Both Heo and Aoki are interested in improving the audio data and using video environment for these different audio signals. Both are generating various audio modes.

One of ordinary skill in the art at the time of invention would have realized that it would be advantageous to change the mode signal of audio streams automatically in system rather than change it manually.

Therefore, it would have been obvious to have used an automatic change-over mode signal in the system of Heo as taught by Aoki because one would be motivated to reduce time it takes to change the signals from one mode to another in the system of Heo and provide better audio signal controls and improve quality of the signals by switching the signals when different modes are selected, especially when audio mode information does not corresponds to the audio channels such as two-language or multi-language broadcast and this troublesome [col. 3, lines 15-25; Aoki].

NOTE: Audi stream attributes are considered audio data.

6. The aforementioned claim 8, recites the following elements, inter alia, disclosed in Heo: the recording modes include monaural audio [mono], multi-channel [multi-channel] audio and multiplexed [stereo] audio [col. 6, line 31 to col. 7, line 12; col. col. 16, lines 1-10].

NOTE: Stereo is a type of multiplexed audio.

7. The aforementioned claim 9, recites the following elements, inter alia, disclosed in Heo: the audio stream contains multiplexed audio data [col. 6, line 31 to col. 7, line 12].

8. The aforementioned claim 10, recites the following elements, inter alia, disclosed in Heo: the multiplexed audio data consists of a plurality of audio channels and contains multiple language data [col. 16, lines 1-10] in different audio channels [col. 5, Table 2; col. 9, lines 27-30; and col. 25, lines 1-63].

NOTE: sub-picture stream contains the language information for different audio channels.

9. The aforementioned claim 11, recites the following elements, inter alia, disclosed in Heo:  
the audio stream further contains multi-channel audio data, and  
wherein the application information indicates that the audio stream contains the audio data with different recording modes [col. 5, lines 19-43; Table 1].
10. The aforementioned claim 12, recites the following elements, inter alia, disclosed in Heo:  
the control information further includes number information indicating a number of audio channels in the audio stream [col. 5, line 6 to col. 6, line 10; Fig. 4 & 5; VTS\_AST\_Ns & VTS\_AST\_ATR].
11. The aforementioned claim 13, recites the following elements, inter alia, disclosed in Heo:  
the control information further includes number information specifying one of the recording modes [col. 5, line 6 to col. 6, line 10; Fig. 4 & 5; VTS\_AST\_Ns & VTS\_AST\_ATR].
12. The aforementioned claim 14, recites the following elements, inter alia, disclosed in Heo:  
the control information further includes rate information [sampling frequency] indicating a bit rate of the audio data [col. 9, lines 56-62; col. 10, lines 67; TABLE 21].
13. The aforementioned claim 15, recites the following elements, inter alia, disclosed in Heo:  
a recording device [fig.14, unit 104] which records audio data in a video recording area of the recording medium as an audio stream; and  
a generating device [fig.14, unit 102] which generates control information in video manager recording area located in a different position from the video data recording area in direction of a diameter of the recording medium,  
wherein the recording device records the control information in a video manager recording area located in different position from the video data recording area in a direction of a diameter of the recording medium [col. 4, line 36 to col. 5, line 41 & col. 15, lines 23-50].

Art Unit: 2627

14. As to claims 16-22, they are claims corresponding to claims 8-14 respectively and they are therefore rejected for the same reasons set forth in the rejection of claims 8-14 respectively, supra.

15. The aforementioned claim 23, recites the following elements, inter alia, disclosed in Heo:  
a reading device [fig. 14, unit 104] which reads the control information from the second recording area of recording medium; and  
a controller [fig. 14, unit 104] which controls the reproduction of the audio data recorded on the first recording area of the medium based on the control information [col. 4, line 36 to col. 5, line 41 & col. 15, lines 23-50].

16. The aforementioned claim 24, recites the following elements, inter alia, disclosed in Heo:  
the recording modes include monaural audio [mono], multi-channel [multi-channel] audio and multiplexed [stereo] audio [col. 6, line 31 to col. 7, line 12].

NOTE: Stereo is a type of multiplexed audio.

17. The aforementioned claim 25, recites the following elements, inter alia, disclosed in Heo:  
the audio stream contains multiplexed audio data [col. 6, line 31 to col. 7, line 12].

18. The aforementioned claim 26, recites the following elements, inter alia, disclosed in Heo  
the multiplexed audio data consists of a plurality of audio channels and contains multiple language data in different audio channels [col. 6, line 31 to col. 7, line 12].

the system further comprising operating device [fig. 14, unit 110] for selecting one of the multiple language data, wherein the controller controls the reproduction of the audio data such that only the selected [audio selection switch] one of the multiple language data is reproduced [col. 15, line 23 to col. 16, line 17].

19. As to claims 27-30, they are claims corresponding to claims 11-14 respectively and they are therefore rejected for the same reasons set forth in the rejection of claims 11-14 respectively, supra.

20. As to claims 31-38, they are method claims corresponding to claims 7-14 respectively and they are therefore rejected for the similar reasons set forth in the rejection of claims 7-14 respectively, supra.

21. As to claims 39-46, they are method claims corresponding to claims 23-30 respectively and they are therefore rejected for the similar reasons set forth in the rejection of claims 23-30 respectively, supra.

22. The aforementioned claim 53, recites the following elements, inter alia, disclosed in Heo:

A reading device [inherently present when data is recoded] which reads the control information from the video manager recording area of the recording medium; and

A controller [since data is managed controller is inherently present] which controls the reproduction of the audio data recorded in the video data recording area of the recording medium based on the control information [fig. 2 and col. 4, lines 36 to col. 5, line 23].

Heo discloses all of the above elements, including a controller and various modes of audio data. Heo also discloses multi-channel audio streams attributes and also a table containing these attributes [fig. 4, RBP 792].

Heo does not specifically discloses a "mixed mode flag" and that these modes are selected in succession [i.e. one after another], or that stream contains audio data intermingled from different recording modes as one stream.

However, it is well known in the art that inherently one has to have a signal for modes. For example when a commercial on the TV comes on, sound level during commercial goes up. This cannot be done unless one knows what mode [i.e. commercial or regular program] is coming next. After looking at this volume is changed. These concepts are well known and very old in the art.

Also more importantly Aoki clearly discloses:

a mode signal which tell if the stream is a singular stream of one kind of a data or it is mixed data which contains various modes [such as monaural, bilingual etc.] in that stream [col. 4, lines 35-43].



NOTE: In Aoki table 1 [prior art] shows that each audio mode is sent to each audio signal input [input 2-6]. However Aoki also very clearly indicates in his invention at col. 4, lines 39-43; that “(for example, monaural, two language/multi-language, stereo 2-channel, stereo 4-channel **or a combination thereof**) is encoded. And it is supplied to the ID/sub-code insertion circuits 11 and 12. In other words Aoki clearly is combining at least two of stereophonic recording mode, monaural mode and multiplex recording mode. These different modes are then separated by decoding these modes and decoding inherently cannot be done unless originally these modes were encoded [combined], which is done by Aoki.

Both Heo and Aoki are interested in improving the audio data and using video environment for these different audio signals. Both are generating various audio modes.

One of ordinary skill in the art at the time of invention would have realized that it would be advantageous to change the mode signal of audio streams automatically in system rather than change it manually.

Therefore, it would have been obvious to have used an automatic change-over mode signal in the system of Heo as taught by Aoki because one would be motivated to reduce time it takes to change the signals from one mode to another in the system of Heo and provide better audio signal controls and improve quality of the signals by switching the signals when different modes are selected, especially when audio mode information does not corresponds to the audio channels such as two-language or multi-language broadcast and this troublesome [col. 3, lines 15-25; Aoki].

NOTE: Because of confusing preamble it is not given weight at this time.

23. The aforementioned claim 54, recites the following elements, inter alia, disclosed in Heo:  
The control information also includes channel numbers [00b, 010b etc.] [TABLE 1 and TABLE 6].

24. The aforementioned claim 55, recites the following elements, inter alia, disclosed in Heo:  
The channel number data indicates multiplexed audio data [stereo], multi-channel audio data, and monaural [mono] audio data [TABLE 3 and TABLE 6 & col. 6, line 31 to col. 7, line 12; col. 16, lines 1-10].

NOTE: Stereo is a type of multiplexed audio.

25. The aforementioned claims 62-66, recites the following elements, inter alia, disclosed in Heo

the video manger recording area is located inward of the video data recording area [fig. 2-3 and col. 4, line 36 to col. 5, line 41].

26. The aforementioned claim 69, recites the following elements, inter alia, disclosed in Heo:  
The video manger recording area is located inward of the video data recording area [fig. 2; col. 4, line 36 to col. 5, line 23].

27. The aforementioned claims 72-76, recites the following elements, inter alia, disclosed in Heo:

generating control information including application information indicating whether or not the audio stream recorded in video data recording area [col. 4, line 36 to col. 5, line 41]. As to rest of claim Aoki discloses:

audio data inter mingled from different recording modes in a channel [col. 4, lines 35-43].

28. Applicant's arguments with respect to claims 7-76 have been considered but are moot in view of the new grounds of rejection.

#### **ALLOWABLE SUBJECT MATTER**

29. Claims 47-52, 56-61 and 67-68, 70-71 are allowed over the prior art of record. Reasoning for allowance was given before. Claim 53-55 and 69 could be allowable over prior art of record subject to overcoming objection to claims 53-55 and 69.

30. Above arts were cited as a prior art reference in previous papers.

Art Unit: 2627

31. Applicant's arguments with respect to claims 7-76 have been considered but are moot in view of the new grounds of rejection.

**Contact information**

32. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gautam R. Patel whose telephone number is 571-272-7625. The examiner can normally be reached on Monday through Thursday from 7:30 to 6.

The appropriate fax number for the organization (Group 2600) where this application or proceeding is assigned is 571-273-8300.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Dwayne Bost, who can be reached on (571) 272-7023.

Any inquiry of a general nature or relating to the status of this application should be directed to the Electronic Business Center whose telephone number is 866-217-9197 or the USPTO contact Center telephone number is (800) PTO-9199.



**GAUTAM R. PATEL  
PRIMARY PATENT EXAMINER**

Gautam R. Patel  
Primary Examiner  
Group Art Unit 2627

August 17, 2007